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Impact of environmental discourses on public health policy arrangements: A comparative study in the UK and Flanders (Belgium)

K.R. Stassen^{a,*}, M. Gislason^b, P. Leroy^c^a (HUB), Centre for Corporate Sustainability, Brussels, Belgium^b Department of Sociology, School of Social Sciences and Cultural Studies, Brighton, UK^c Political Sciences of the Environment, Nijmegen, The Netherlands

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SUMMARY

Objectives: Theoretically inspired by discursive institutionalism and multi-level governance, this paper assesses the extent to which 'environmental health' has emerged as a new discourse at European level, the effects it has had on national public health governance in two European countries, and what mechanisms have triggered or hindered these effects.

Study design: Comparison of the dynamics in public health policy arrangements in Flanders (Belgium) and the UK, nations influenced by both international and European environmental health discourses.

Methods: The Policy Arrangement Approach was the analytical framework used to structure the results of this textual analysis.

Results: Despite their shared focus on environmental health, Belgium and the UK display quite different approaches to environmental health governance. While Belgium works on environmental health in a predominantly top-down approach, the UK has developed a more inward-facing approach to environmental health policies.

Conclusion: The cases of the UK and Belgium show that, although these countries respond similarly to internationally agreed charters and both are members of the European Union, national differences in environmental health policies persist, mainly due to pre-existing national policy arrangements and the activities of national institutions. This leads to a divergent interplay between national and international institutions.

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Introduction

Over the last three decades, initiated by the Declaration of the United Nations Conference on the Human Environment in 1972, and followed by the European Conferences on Environment and

Health of the World Health Organization (WHO), environmental health issues have become explicitly present on the political agenda in Europe and its member states. These international agreements on environmental health stimulated initiatives at European and national policy levels. Consequently, pre-

* Corresponding author.

E-mail address: kristien.stassen@vito.be (K.R. Stassen).

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existing public health services as well as environmental policies needed to be revised to accommodate these new developments.

The main questions addressed in this paper are the extent to which European discourses on environmental health affect domestic public health policies in the UK and Flanders (Belgium), and which mechanisms trigger or hinder these effects. Inspired by theoretical concepts on discursive institutionalism and multi-level governance, this article assumes that these newly emerging discourses on environmental health at the European level reproduce and transform pre-existing institutions at the national level by providing new agencies with resources and by changing power relations, both of which result in new rules, discourses and policy formations.

The first section positions both ‘discursive institutionalism’ and ‘multi-level governance’ within recent policy analysis literature, and introduces the Policy Arrangement Approach as an appropriate analytical framework. The second section depicts the methods used. The subsequent sections describe the discursive changes that have occurred at the European level, and the consequent dynamics that have played out in Belgium and the UK. The article concludes with a discussion of the findings, and some intriguing questions for further research are proposed.

Theoretical background and analytical concepts

Compared with other approaches within new institutionalism – rational choice, historical and sociological institutionalism – discursive institutionalism assumes: (a) the important role of discourses in influencing actors’ preferences, interests and behaviour; and (b) the role of these discourses in assuring institutional stability, while simultaneously triggering and legitimizing institutional change.¹ In this approach, therefore, discourses are understood to be socially constitutive and hence essential to understanding institutional dynamics.² Through discourses, agencies express their ideas and ideals, their conception of societal issues and the way in which these could or should be dealt with in politics and policies. The former are labelled as ‘substantial’, the latter as ‘governance’ discourses.³ Through interaction, agencies exchange discourses, merge into discursive coalitions or split up into discursive oppositions, depending upon shared or conflicting definitions of reality.⁴ Predominantly, discourses find their way into policy programmes and, often implicitly, underpin concrete policy measures. Consequently, discourses eventually translate into budgets and responsibilities, and into competencies and rules. Thus, as Hajer states: ‘*language has the capacity to make politics, to create signs and symbols that can shift power balances and that can impact on institutions and policy-making*’.⁵

This article, however, does not aim to describe discursive changes, but to assess the impact thereof at other policy levels. Here, the second concept comes into play: multi-level governance. This concept draws attention to the role of actual governance activities, whether initiated by governments, or private or societal agencies, and the interplay of them across a range of geographical-administrative scales, inducing (or not) institutional changes at these different scales. Multi-level governance is defined here as: ‘*a negotiation between nested*

governmental institutions at several levels (supranational, national, regional and local) on the one hand, and private actors (NGOs [Non-Governmental Organisations], producers, consumers, etc.) on the other’.² In particular, multi-level governance reflects major developments taking place in Europe over the last few decades, including intriguing questions regarding whether European integration leads to harmonization and convergence, or rather to a continued diversity as policy formations encounter the persistent features of persisting domestic arrangements. Given these arenas of inquiry, studies informed by multi-level governance have inspired the authors’ research on the domestic impact of newly emerging discourses in the field of environmental health policies.⁶

Bringing these various theoretical strands together and elaborating them into empirical analysis asks for an appropriate analytical framework. Here, the authors build on the Policy Arrangement Approach, developed to analyse change and stability empirically within policy arrangements. A policy arrangement is defined by Leroy and Arts as: ‘*the temporary stabilisation of the content and organization of a particular policy domain at a certain policy level or over several policy levels in case of multi-level governance*’.² This framework has been tested in a series of research endeavours in the environmental domain, resulting in articles and dissertations. While studying institutional change (or the lack thereof), the Policy Arrangement Approach distinguishes four interwoven dimensions of any policy arrangement: (a) actors and coalitions; (b) resources and power; (c) rules of the game; and (d) discourses.² The first refers to the agencies and their coalitions involved in the policy domain, and the second refers to the allocation of resources and the differences in power that result from their distribution. The rules of the game refer either to formal and informal procedures of decision-making or to routines of interaction (who has access, who advises, who gathers data, who interprets these, who decides etc.). Finally, discourses entail the norms and values, problem definitions and solution strategies of those involved. Each of these four dimensions might be the trigger of changes, while, equally, each of them might block such a change and preserve institutional stability. As mentioned above, this paper focuses on the change-inducing roles of international and European discourses on environmental health within Belgian and British institutions.

Methods

A thorough discourse analysis was undertaken to investigate the impact of internationally launched discourses upon domestic institutions in two countries. This started with a systematic study of texts in order to establish how and where discourses emerged.⁴ After this historical analysis of environmental health discourses at the international and European level (see below), the penetration and influence of these discourses on the environmental health policy arrangements in the UK and Belgium were assessed. Comparison of similarities and differences between Belgium and the UK provided information about probable mechanisms of change and stability, and favourable and unfavourable factors for institutional change.

A valid discourse analysis asks for a clear methodology on how to select agencies and texts. For the former, an actor map

of the two countries involved was built while exploring the relevant policy domains, distinguishing governmental, private, societal and scientific agencies, and those particularly responsible for the interaction between these (e.g. advisory boards). While these actor maps are merely heuristic instruments that do not pretend exhaustiveness, they do plot key agencies and the primary interaction forums.

Regarding the texts, the authors concentrated on texts originating from the WHO Regional Office for Europe (WHO-Europe) and, at European Union (EU) level, on the documents related to the Ministerial Conferences on Environment and Health (1989, 1994, 1999, and 2004). Websites related to the environment and health were also explored. Selection of the appropriate policy documents at national level was conducted by identifying the key agencies involved in drafting, ratifying and implementing environmental health legislation, as well as those involved in actual implementation. In the case of the UK, the search engine of the UK Parliament was used to identify relevant documents. Policy documents were also gathered from the three key agencies involved in environmental health governance: the Department of Health; the Department for Environment, Food and Rural Affairs; and the Health Protection Agency. In the case of Belgium, national policy documents and legislation were gathered from the search engine of the Flemish Parliament. Annual reports, advisory reports and recommendations were also downloaded from the websites of the public health administrations, advisory bodies, scientific networks and stakeholder groups.

For systematic analysis of these texts and documents, automated search tools were used to screen the documents for the term 'environmental health'. Subsequently, each instance of a reference to environmental health was evaluated qualitatively by analysing the meaning of the term. In order to consider changes in definition over time, these definitions were compared, as were the topics mentioned in relation to environmental health. The latter approach allows the identification of discursive changes.

To analyse the policy arrangements in the two countries concerned, and the possible changes therein, the actor map was used as a starting point. As much as is possible through mere text analysis, the resources, expertise and competencies of these agencies were established, including the power relations between them. Here again, the actor map allowed the authors to plot the various agencies, assessing their centrality to specific policy sub-domains. Finally, it is noteworthy that this article reports on research that is still underway. So far, the research is document based; as such, one restriction of this study is that while the formal rules of the game can be observed, one can only hypothesize about their informal counterparts. While the former approach suffices for an assessment of key discursively induced changes (or the lack thereof), the latter may add more nuanced information about the mechanisms behind them.

Emergence of environmental health at international and European levels

This section will primarily look into the successful launch of key sensitizing environmental concepts and discourses at

international and European levels which gradually solidify into national policy arrangements. A schematic overview of the emergence of the environmental health discourse at international and European levels is presented in Fig. 1. Since its introduction, environmental health has been defined by WHO-Europe as 'those aspects of human health and disease that are determined by factors in the environment'.⁷ This definition takes into account a holistic approach, embracing the social and cultural environment and genetics, but excludes behaviour not related to the environment.⁸

The environmental health discourse has been developed over time as an increasingly important issue within sustainable development. Sustainable development was set on the international political agenda by the Declaration of the United Nations on Human Environment (1972), which emphasized the inter-relationship of human activities and their impacts on the biosphere and, in turn, the interdependence of human beings and the environment. The environmental health discourse and policy frame in Europe was initially set by WHO-Europe. Central to this initiative was the Environment and Health Process for Europe launched by WHO-Europe in 1989, and marked by a series of 5-yearly Ministerial Conferences intended to shape European and national agendas on health and the environment, as well as to strengthen collaboration on a variety of scales.⁹ At the First Ministerial Conference (1989), the ministers endorsed the European Charter on Environment and Health in which they recognized the dependence of human health on a wide range of environmental factors, and agreed upon the basic principles, mechanisms and priorities at work within this phenomenon. The Charter comprises the backbone of the European environmental health policy context, and was also influential in the 1992 'Rio Summit' which resulted in Agenda 21. At the Second Ministerial Conference (1994), the integration discourse was set out and contained an acknowledgement of: (a) the need for closer co-operation between health, environment and research areas in order to develop a community system that integrates information on the state of the environment, ecosystems and human health; (b) the importance of institutionalizing environmental health as a policy domain; and (c) the intent to improve co-operation between the European, national and local level processes. The established Environmental Health Action Plan for Europe (EHAPE) aimed to give purpose and direction to environmental health activities within countries by ensuring co-ordinated actions designed to make the best use of the limited resources and to avoid the duplication of efforts.⁷ The member states also committed to developing national action plans on health and the environment (NEHAP) by 1997. Inspired by the Aarhus Conference on the Environment for Europe (1998), the discourse of stakeholder involvement was set out as important to environmental health matters during the Third Ministerial Conference (1999). This discourse reflects the call for: (a) effective public access to information; (b) an improvement in communication and public participation; and (c) access to justice for the public with regard to environment and health matters. At the Fourth Ministerial Conference (2004), the particular vulnerability of children and reproductive health to environmental threats was made explicit, and international agreements highlighting the protection of

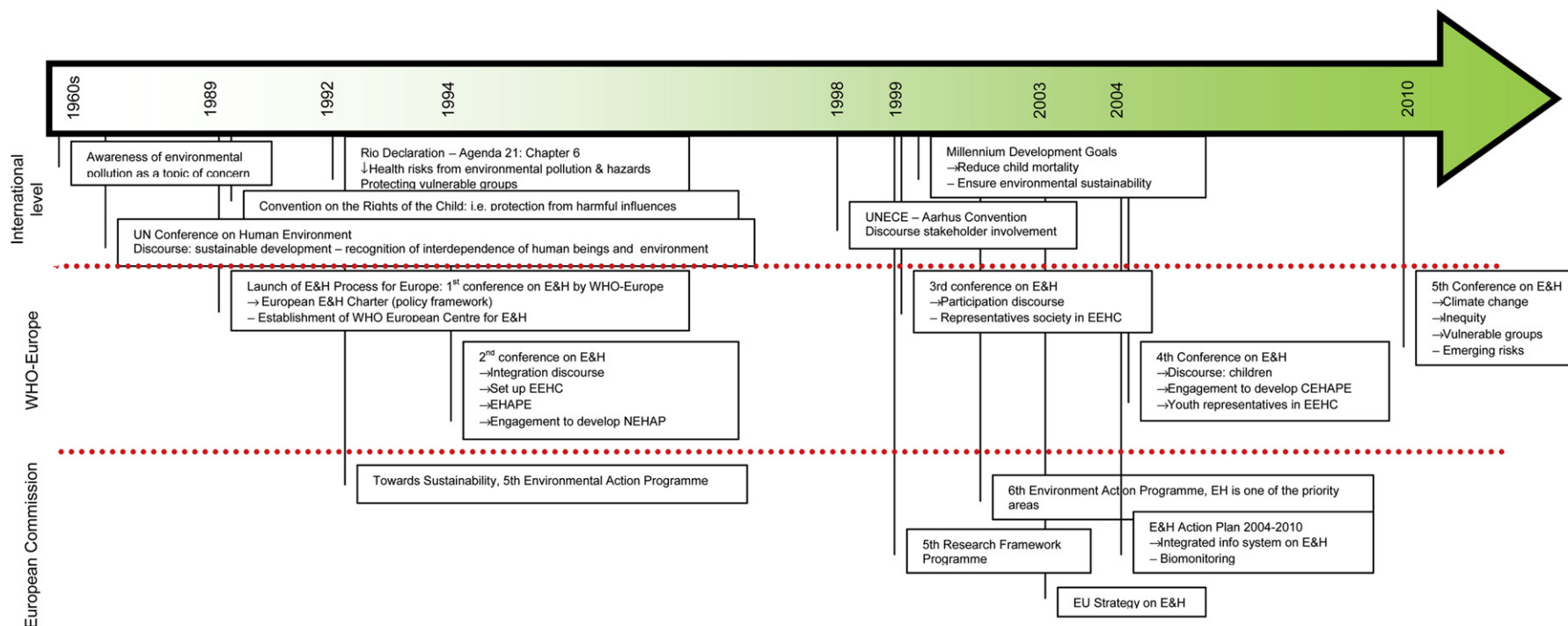


Fig. 1 – Schematic overview of the key events in environmental health policy at the international and EU-level. UNECE, United Nations Economic Commission for Europe; WHO-Europe, World Health Organization Regional Office for Europe; E&H, environment and health; EEHC, European Environment and Health Committee; EHAPE, Environmental Health Action Plan for Europe; NEHAP, national action plan on health and the environment; CEHAPE, Children's Environment and Health Action Plan for Europe.

vulnerable groups (e.g. children) from harmful (environmental) influences, such as the Convention on the Rights of the Child (1989), the Rio Declaration (1992) and the Millennium Development Goals (2000), were reinforced. More recently, the discourse ‘environment, health and children’ has been elaborated into the Children’s Environment and Health Action Plan for Europe (CEHAPE).¹⁰ During the Fifth Ministerial Conference, held in Parma in 2010, the protection of vulnerable groups was confirmed. In addition, more attention was given to the environmental health impacts of climate change and other emerging risks, such as nanoparticles and socio-economic and gender inequalities.

Inspired by the international agreements on sustainable development and WHO-Europe initiatives on environmental health, the EU and the European Commission (EC) focused more attention on environmental health issues. In order to implement initiatives such as Agenda 21, the EU adopted ‘Towards Sustainability’, a programme of policy and action in relation to the environment and sustainable development, better known as the fifth EC Environmental Action Programme. This programme was among others linked to the EHAP. In the Sixth EC Environmental Action Programme, environment and health was identified as one of the four priority areas. In light of these efforts, and due to the high number of environment-related diseases being reported, the EC adopted a strategy on the environment and health in 2003 in which it recognized the complexity of environmental health problems and took into account cocktail effects, combined exposures and their cumulative effects. This policy framework, also called the ‘SCALE initiative’, aims to scale up efforts to protect human health and reduce diseases caused by environmental factors, particularly in children because of this group’s higher vulnerability, as well as to attend to the related economic impacts of such interventions. Reflecting the integration discourse, the SCALE strategy proposed closer co-operation between health, the environment and research areas, and promoted the development of a community system that integrates data on the state of the environment, ecosystems and human health. As European policy seeks to be based on scientific evidence, the EU funds environmental health research in their Framework Programme for Research and Technological Development. Referring to the Aarhus Convention, the European policy framework also requested the integration of all stakeholders by drawing together knowledge from a wide range of actor networks in order to ensure efficient implementation of the strategy. The EU strategy was followed by the European Environment and Health Action Plan 2004–2010 which proposes the development of an integrated information system on the environment and health, as well as a co-ordinated approach to human biomonitoring to render the assessment of the environmental impact on human health more efficient. To conclude, when these various international and EU initiatives are analysed in conversation with one another, it becomes clear that three central environmental health discourses can be distinguished: integration, stakeholder involvement and children. These novel environmental health discourses have greatly affected the involved actors at the European level. For instance, representatives of civil society, particularly youth, are included in the EEHC. Another illustration is the establishment of the European Centre for Environment and Health, and the Consultative

Group on Environment and Health to assure science-based decision-making on the one hand and stakeholder involvement on the other hand. How these three major discourses have been taken up within national contexts within Europe has been variable, however, as illustrated by the following analysis of the national processes in Flanders and the UK.

Flanders environmental health policy arrangement

In Belgium, three phases within environmental health policy development can be distinguished: (a) ad-hoc policy until 1998; (b) agenda setting from 1998 to 2002; and (c) implementation of the Flemish Environmental Health Network and NEHAP since 2003. The analysis of the dimensions of the Policy Arrangement Approach will take these episodes into account. A schematic overview of the most important key events is presented in Fig. 2.

Discourses

Until the 1990s, environmental health was not mentioned explicitly in policy documents. Environmental health was characterized as an ad-hoc policy field where agenda setting was based on crisis (e.g. the lead crisis in the 1970s or the cadmium crisis in the 1980s), and not generated as a result of a structured forward-thinking agenda or in response to the international and European developments. Although there were several opportunities to act, the Government and stakeholders of the day missed the opportunity to develop an integrated environmental health policy with a clear vision and well-defined health targets. One obstruction to seizing such opportunities was the federalization of Belgium, which distracted the decision makers in Flanders from dealing with environmental health issues because of other, more institutional priorities. A second obstruction at that time was the fact that the health policy domain was based on an individualistic and curative approach, whereas the environmental policy arena was grounded in an ecocentric approach. Therefore, despite the activities surrounding the European integration discourse, there was neither vision, co-operation nor co-ordination between the separate policy domains in Flanders. The commotion generated around the possibility that the high dioxin deposition of two municipal waste incinerators in residential areas was causing congenital abnormalities in 1997 created the opportunity to rethink current affairs concerning environmental health. Although some preliminary decisions, such as the initiative to offer research funds and local contacts to engaged actors, had already been taken, most efforts were realized after the occurrence of the dioxin affair that struck Belgium during the spring of 1999. This dioxin crisis strongly influenced the elections of 1999 in a way that enabled the Green Party to profit from public concern and ultimately join the newly formed government from 1999 until 2004. Under the influence of the Green Party, environmental health was put on the political agenda. The integrated policy document ‘Environment and Health’ (2001) marked an effort to institutionalize environmental health into governance structures, and identify the priorities and basic principles of

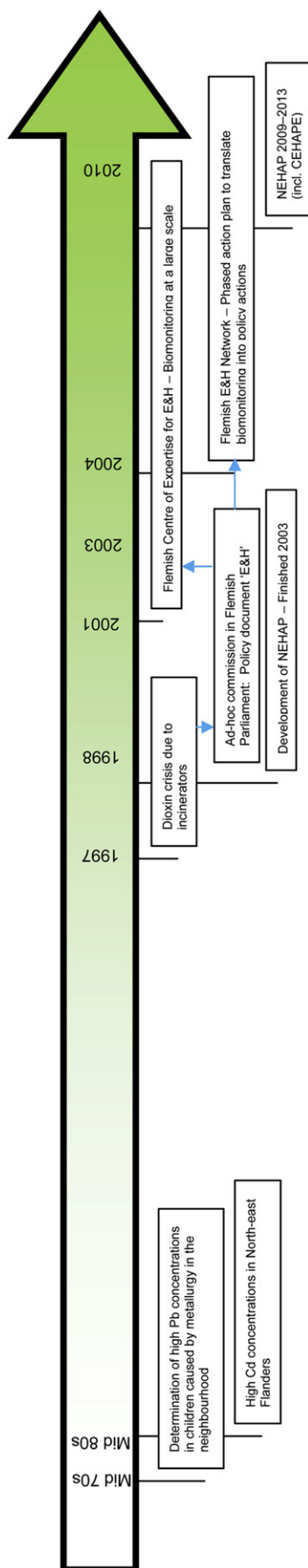


Fig. 2 – Schematic overview of the key events in Flemish environmental health policy. E&H, environment and health; NEHAP, national action plan on health and the environment; CEHAPE, Children's Environment and Health Action Plan for Europe.

this newly emerging policy field. The philosophy at work was to emphasize the integration of environmental considerations within public health policy, and vice versa, building on a commitment to co-operation and co-ordination. The main principles of the Flemish environmental health policy arrangement have been to develop policy that: (a) is science-based or evidence-based; (b) reflects the precautionary principle; and (c) encourages stakeholder participation. The implementation of an environmental health network was proposed to prevent health problems due to environmental pollution, to trace potential threats as expediently as possible and to allow for full participation. Biomonitoring was selected as a scientific methodology to be used to measure and evaluate human exposure to environmental pollution. Flanders was one of the pioneers in using biomonitoring on a large scale and developing tools for communicating biomonitoring results and translating biomonitoring data into policy actions. Given this strength, Flanders advocates this methodology at international forums. Finally, with regard to children and environmental health discourse, the Flemish Government opted to integrate the protection of all vulnerable groups, not only children, into their action plans, rather than create a separate children action plan as suggested by WHO-Europe.

Actors

Due to the federalization of the Belgian state in the early 1980s, the power to make decisions about environmental and health issues had been left in the hands of regions and communities, respectively. As a result, environment and health portfolios were allocated to separate ministries; a decision which ultimately hampered the development of an integrated policy approach that could be put into practice in a comprehensive and co-ordinated manner.¹¹ In response to the advice to form an ad-hoc Parliament Commission, the Flemish Environmental Health Network was launched in 2001 by the Green Party, who joined the Government after the dioxin crisis. This network still stands as a three-level construction which consists of local environmental health experts, the Flemish Health Ministry and the Environment Ministry, and the Centre of Expertise for Environment and Health. At this centre, environmental health experts from all Flemish universities and two research institutes jointly investigate the complex relationship between the environment and health. The most important advisory bodies involved from the Flemish Government are the Flemish Health Council and the Environment and Nature Council Flanders. A map of the current actors within the Flemish environmental policy field is presented in Fig. 3. Federal interministerial meetings have been organized in order to address and co-ordinate environmental health actions between the regions and communities in Belgium. For example, the Federal Public Service Health, Food Chain Safety and Environment was set up after the dioxin crisis with the goal of supporting the federal government on transboundary issues such as climate change and product policies. To implement and monitor NEHAP in Belgium, the Joint Interministerial Conference on Environment and Health was supported by the Cell Environment-Health which includes a representative from both the Environment Ministry and the Health Ministry.

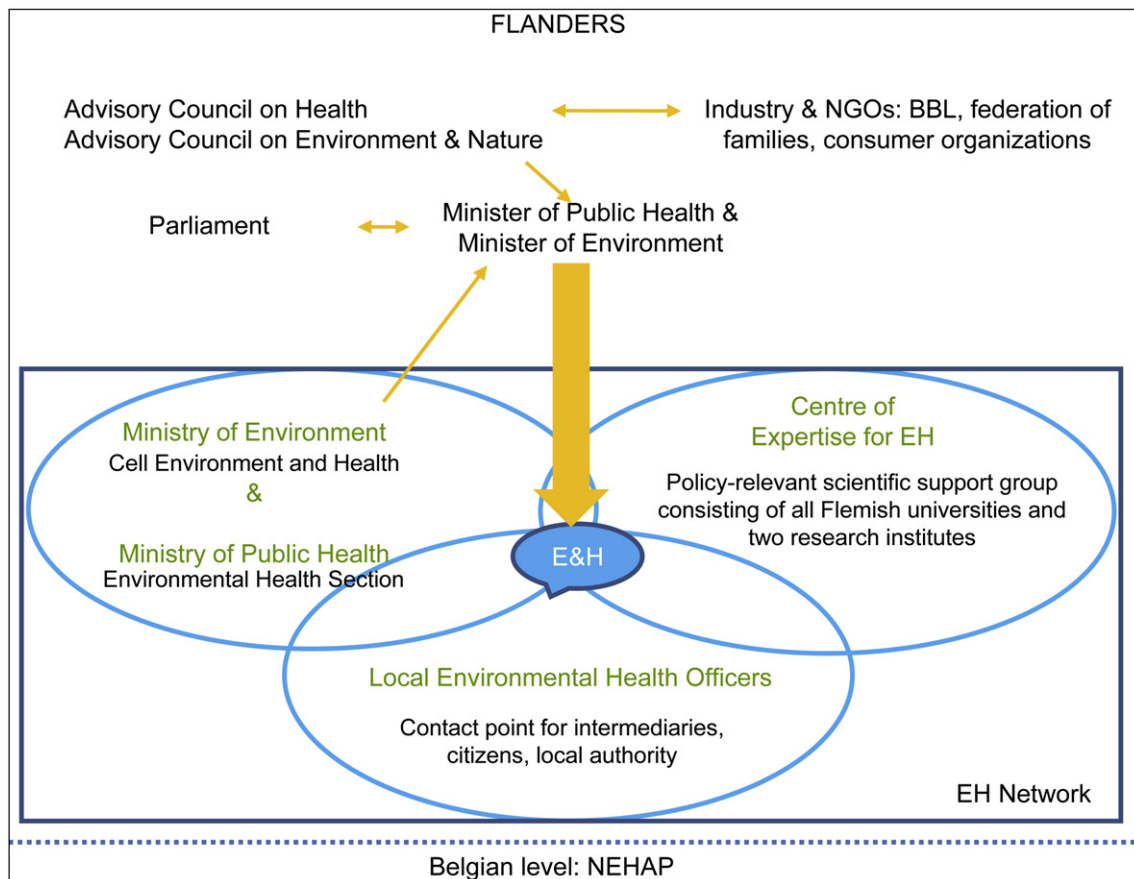


Fig. 3 – Key actors within the Flemish environmental health policy arrangement. BBL, Bond Beter Leefmilieu, the Flemish umbrella organisation for the environment; NGOs, non-governmental organizations; NEHAP, national action plan on health and the environment; CEHAPE, Children's Environment and Health Action Plan for Europe; EH, environmental health; E&H, environment and health.

Rules of the game

Environmental health policy is determined by commitments made at the European Ministerial Conferences on Environment and Health and by European legislation. As a member of WHO-Europe, Belgium launched its NEHAP in 2003 after the formation of a formal ministerial conference which brought together all of the competent ministers in the fields of environment and health. The result of this event was the establishment of the Health and Environment Steering Group/Committee, which brought together the various public actors who are potentially involved in working on environment and health. To implement the actions mentioned in the NEHAP, a co-operation agreement was signed on 10 December 2003 by the federal government and the governments of the regions and the communities. This agreement established the rules for collaboration, provided a framework for joint action, facilitated a multi-disciplinary approach and attracted financial support for NEHAP projects and actions. The Flemish Parliament Act on preventive health policy, adopted in 2003, enabled the Flemish health authorities to take initiatives to prevent environmentally-related illnesses. The Act's basic principles are biomonitoring, informing the public, taking measures to reduce emissions based on the precautionary

principle, and responding to complaints about pollution in buildings and in the atmosphere.

Resources

Due to federalization, the federal state lost its authority and, at the same time, the knowledge and expertise of civil servants who had experience dealing with environmental health-related issues. Not surprisingly, while embracing the issues of sustainable development and climate change, the federal government has been slowly reconsolidating its position. In particular, the Flemish Health Ministry and Environment Ministry have been addressing environmental health topics. However, the power is not divided equally between these two ministries. For example, in 1997, the Minister of Health was sensitized by the dioxin crises related to incinerators and added environmental health to the political agenda. It was also a minister of health who took the initiative to write an integrated environmental health policy document in 2001. However, presently, the Environment Ministry appears to make more investments in environmental health issues, and is more involved in this arena than the Health Ministry. In this regard, the Centre for Expertise on Environment and Health can be used as an example. The Centre is financed by the

Department of Science and co-financed by the authorized ministers. During the first period, the Environment Ministry co-financed less than the Health Ministry. However, during the second period, the opposite was true. That said, both ministries only employ a handful of civil servants who are responsible for dealing with environmental health issues. Given this governmental situation, it is through the financing of universities and research institutions in the form of the Centre for Expertise on Environment and Health that scientists have a greater possibility to influence and determine environmental health policy in Belgium.

Environmental health policy arrangement in the UK

Three phases within UK environmental health policy development can be identified: (a) ad-hoc policy development until 1989; (b) agenda setting from 1990 until 1999; and (c) the absorption and integration of environmental health policies into broader policy contexts since 2000. The analysis of the dimensions of the Policy Arrangement Approach will take these three episodes into account. A schematic overview of the most important key events is presented in Fig. 4.

Discourse

Historically, the environment has been a consideration within public health initiatives in the UK; however, it was not until the 1960s that the links between the environment and health were given serious attention in the contemporary era. Citizens, non-governmental organizations (NGOs) and organizations, often with the help of sympathetic scientists and health professionals, worked to shape public discourse on the environment and health through activism, environmental education and mass publications.¹² The 1972 Stockholm Conference brought the importance of the links between health and the environment to the attention of governments. Generally, however, in the UK, issues relating to health and the environment were rather a regional concern endorsed by local authorities.¹³ By the late 1980s, issues of health inequalities and the importance of environmental determinants of health were finally put back on the national public health agenda, although not always in a way that led to serious attention to environmental health issues.¹⁴ By the 1990s, important regulatory frameworks were introduced, precipitated by key documents such as the 1990 Green Paper and the UK Strategy on Sustainable Development, both of which encouraged national and local governments to address environmental problems. It was also during the 1990s that the UK developed its NEHAP, through which the UK discourse on environmental health was clearly established. By the mid-1990s, there was also an effort to bring more cohesion to issues of the environment and health. This was marked by a series of initiatives taken by the Environment and Health Departments, such as development of the Green Paper 'Health and the Environment', a document designed to seek consultation and build partnerships in selected areas of environmental and health concerns.¹⁵ One stumbling block was found in areas framed solely as health focused, such as the

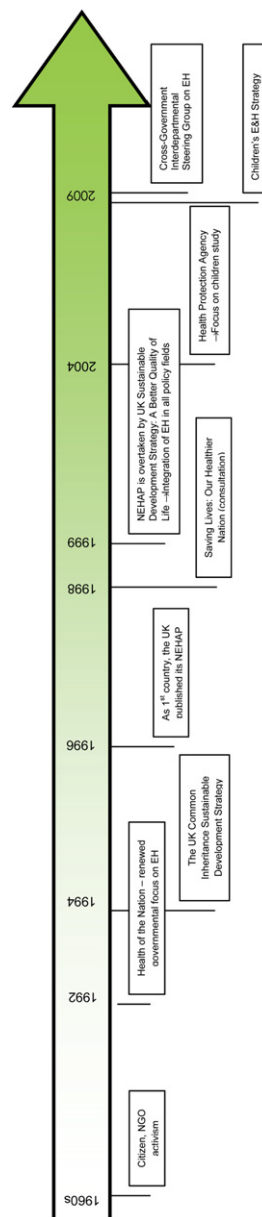


Fig. 4 – Schematic overview of the key events in UK environmental health policy. NGO, non-governmental organization; EH, environmental health; NEHAP, national action plan on health and the environment; E&H, environment and health.

main strategy for health provision in the UK articulated within 'The Health of the Nation' document, which did not include the environment as one of the key areas to be targeted.¹⁵ The opportunity for cohesion was eventually found within the UK strategy on sustainable development, 'Securing the Future'. Within the UK, support for this approach is endorsed based on the discourse that 'the economic, social and environmental characteristics of a sustainable society are the same as those of a healthy society'.¹⁶ Proponents of using this approach suggest that this is 'a new paradigm' that should be mainstreamed within public health in the UK.^{16–19} In 1997, there was a change of government; the new Labour government appointed its first Minister for Public Health and published a document to replace the 'Health of the Nation' titled 'Saving Lives: Our Healthier Nation'. A key difference between the two documents was that the latter acknowledged that contextual factors, specifically social issues such as poverty, generate significant health inequalities. Therefore, the frameworks for environmental and health interventions were different. By 2000, the discourses were more about the technicalities of how to value and measure the links between health and the environment than about how to develop upstream thinking around these issues. More recently, discourses on governance have started to address integration issues which investigate the 'inter-relationship' between systems and structures of governance. One of the central discourses in this effort has been the notion of an 'integration of perspectives' on a health situation rather than the production of a series of single issues. Currently, growing themes in environmental health in the UK are issues related to climate change as well as to the health of vulnerable populations such as children; a focus being developed through documents such as the WHO-Europe CEHAPE initiative which requires this more holistic treatment.

Actors

Where the responsibility for environmental health issues should fall within UK governance structures has been an ongoing issue which has tended to be characterized by the delegation of responsibility away from the national government to regional and local governments. This trend has also occurred within the National Health Service (NHS). During the 1980s, the NHS began to address health and the environment as part of its move towards preventative health issues, and to a large degree did so by delegating issues of environmental health to local authorities, which were also responsible for issues perceived to be non-health lifestyle issues, and all of which were addressed using control and inspection functions.²⁰ By the 1980s, the centrality of local authorities to environmental health responses had been formalized for initiatives around sustainable development as well as for environmental and health issues.²¹ As initiatives, such as the development of local Agenda 21 strategies, were developed by local authorities, the roles and responsibilities of environmental health practitioners were elaborated upon and included a mandate to work in conjunction with other public health professionals, such as doctors and community nurses, active at both local and national levels. Since 2000, a new era of policy formation emerged, characterized by the absorption and integration of environmental health policies into broader

public health policy contexts, as well by the formation of new organizations who share a piece of the responsibility in the UK for health issues related to the environment. For example, the UK's environmental agencies have memorandums of understanding and working agreements with a variety of UK agencies, some of which have only recently been formed. One such central player is the Department for Environment, Food and Rural Affairs. Formed in 2000, this governmental department is responsible for environmental protection, food production and standards, agriculture, fisheries and rural communities in the UK. In 2003, the UK Government set up the Health Protection Agency which is increasingly expected to collaborate around environmental health issues through the provision of 'support and advice to the NHS, local authorities, emergency services, other Arms Length Bodies, the Department of Health and the Devolved Administrations'.²² Shifts in health approaches taken by the Department of Health have also occurred following the 2005 public health White Paper 'Choosing Health', where the need to develop capacity and capability across the workforce was thought to include environmental health workers as key front-line public health workers.²³ Given the diverse responses to environmental health, the actors involved in the current environmental policy field are from academia, business/industry, environment ministries, health ministries, local authorities, the media, non-governmental organizations (Green Alliance, Friends of the Earth) and professional organizations (Chartered Institute of Environmental Health).²⁴ Recent initiatives, such as the Joint Environment and Human Health Programme in the UK, have also brought into play a new configuration of funding bodies and governmental departments.²⁵ A final example is drawn from work that has emerged out of the Children's Environment and Health Strategy, which has resulted in the formation of a Cross-Government Interdepartmental Steering Group on Environmental Health in 2009. This group is responsible for co-ordinating collaboration between 16 governmental departments and agencies drawn from England, Scotland, Wales and Northern Ireland.²⁶ An actor map of the current UK environmental policy field is presented in Fig. 5.

Rules of the game and resources

The institutional dimensions of environmental health legislation in the UK take a range of forms that extend from information procedures and decision-making through to the establishment and reinforcement of formal governance mechanisms. In the 1990s, the UK made a significant step forward in formalizing its environmental health policies and responses through its participation in the EU's NEHAP initiatives. Within the UK, all the national ministries contributed to development of the national action plan. Many other organizations were also consulted, including research institutes, universities, regional/local authorities, NGOs and corporate industry. However, unlike some of the other member states, the UK already had legislative, administrative and regulatory mechanisms in place, which enabled the UK to achieve the aims and standards of protection required of the NEHAP. Additionally, this helped the UK to become the first country to publish a NEHAP (in July 1996), as well as to host the Third

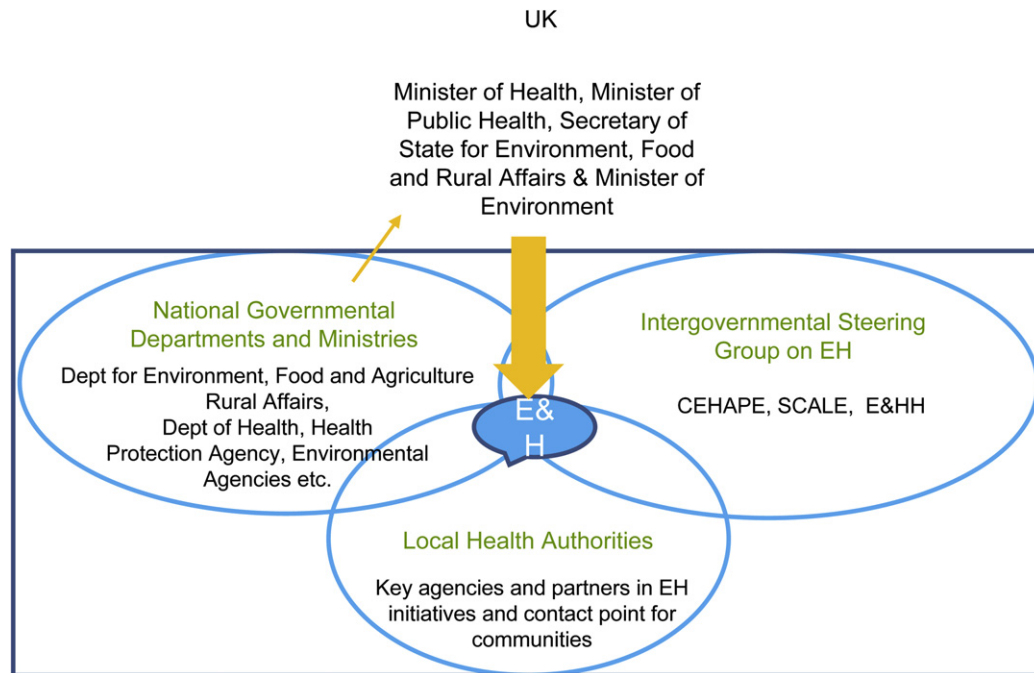


Fig. 5 – Key actors within the UK environmental health policy arrangement. CEHAPE, Children’s Environment and Health Action Plan for Europe; EH, environmental health; E&HH, Environment and Human Health Programme; E&H, environment and health. SCALE, The Environment and Health strategy of the European Commission also referred to as the SCALE (Science, Children, Awareness, Legal instrument, Evaluation) initiative.

Ministerial Conference on Environment and Health, and to serve as a member of the WHO European Environment and Health Committee (EEHC) and the WHO International Steering Committee for Evaluation of Environmental Health Policies and Action Plans. In contrast to the successes of the construction phases of the plan, however, the NEHAP itself was never implemented. The 1999–2000 review of the NEHAP suggested that this was the case because the aims and functions of the NEHAP were already being fulfilled through other governance mechanisms, particularly the UK’s sustainable development strategy ‘A Better Quality of Life’.¹¹ Critics of the UK approach suggest that the discontinuation of an explicit NEHAP and its subsumption within another policy field functions is a case of ‘hid[ing] environmental health in a sustainability framework’.¹¹ More generally, a study on the relationship between EU and UK environmental health governance found that the EEHP, the document informing the development of the NEHAP, had only a few marginal and direct influences on the UK policy development process but several indirect yet constructive influences, including ‘better co-operation between government departments, greater awareness of environment and health issues from an international perspective, and a higher political profile of environment and health issues’.²⁴ During a stakeholder consultation about formation of the NEHAP, a majority expressed that ‘there had been a missed opportunity for closer working between all levels of UK Government departments and agencies (...) it was felt that there were other drivers of environment and health, not just the NEHAP. It was also noted that there was no implementation process attached to the UK NEHAP’.²⁴

The reasons given for the lack of direct impact included that many European-wide initiatives may have been superseded by domestic policy initiatives, the absence of effective co-ordination and promotion strategies, as well as a lack of appropriate indicators for measuring environmental health needs, progress and policy impact.²⁴

Discussion

The central aims of this paper were to assess the extent to which recently emerged international, particularly European, discourses on environmental health have affected domestic public health policies in Belgium and the UK, and to identify which mechanisms trigger or hinder institutional changes in these two European countries. To this end, the authors begin by summarizing the discursive changes which have occurred at the European level, and conclude with some suggestions for institutional changes that seem to follow from these shifts. The authors then move on to discuss the two countries involved by looking briefly at institutional dynamics (or the lack thereof), and discussing the extent to which the different dimensions of the arrangements are (or might be) affected by these novel discourses. Finally, the authors reflect upon the theoretical and analytical concepts, and venture possible ways forward for identifying the triggering and hindering mechanisms at work in policy change in more detail.

At the EU level, in itself clearly contextualized by the renewal of environmental health discourses at the global level, three major discourses have emerged: (a) integration (of the policy fields concerned); (b) stakeholder involvement (in

both policy formation and implementation); and (c) children (as a specifically vulnerable category and therefore as a specific and prioritized target group). In addition to these three major discourses, European policy documents highlight complexity and evidence-based decision-making as important issues, reflecting the trend that, over time, the complexity of environmental health issues has been appreciated. One aspect thereof is the attention given to multiple exposures and to cocktail effects, even in low doses.

Firstly, it is clear from this analysis that these novel environmental health discourses have greatly affected the (other dimensions of an) European policy arrangement 'in the making'. With regard to actors, these discourses have led to increased integration of civil society, particularly youth, in the EEHC. In addition, to assure science-based decision-making on the one hand and pursued stakeholder involvement on the other hand, new organizations have been established, most notably the European Centre for Environment and Health and the Consultative Group on Environment and Health. The discursive strength of 'integration' has also had impacts; for example, it has led to increased efforts to link environmental and health domains, as is reflected by the establishment of organizations such as the EEHC and the organization of many interministerial conferences. However, as this study indicates, even better co-operation between these fields is required, as there is an urgent need for a common, if not an integrated, information system, which is largely lacking at present.

Secondly, and before turning to review the national level, the strongly advocated environmental health discourse has also resulted in new agreements, charters and legislation between the member states, and led to development of the EHAPE and CEHAPE. The latter reflects a growing awareness of the transboundary character of environmental and health issues, and thus commonly shared discourses. In addition, it draws attention, yet again, to how discourses have contributed to the set up of new institutions which include ways (and rules) of interacting, exchanging and co-operating. These interactions, in turn, enable the occurrence of learning processes between countries, as was the case, for example, with the UK's process of developing its NEHAP, where countries such as Belgium took guidance from the UK's insights and experiences.

Thirdly, this research on the UK and Belgium shows that even though both countries are EU members and therefore respond to the same charters, agreements and initiatives, they respond in quite divergent ways. Dissimilarities and divergences reflect overall policy approaches and methods, as well as the specific allocation of competencies and resources. As a result, the two countries display different approaches to environmental health governance.

In the case of Belgium, the downloading of international discourses into domestic institutions clearly follows a top-down approach. However, this implementation of international discourses, policies and agreements has unfolded rather slowly, as Belgian internal policy developments have been hindered continuously by institutional difficulties (e.g. the complicated interaction between the three regions on the one hand, and between the two policy fields on the other). In contrast, crises seem to be the factors most likely to trigger mechanisms involved in the implementation of international policies. The development of the Belgian NEHAP is a good example of such

a stalled process. Due to a series of institutional Belgian state reforms, the NEHAP development process did not commence until 2000. There is one striking exception to this slow and top-down feature of Belgium; the efforts in biomonitoring. However, here again, a series of environmental health crises seem to have played a decisive role in initiating the supply and further development of biomonitoring expertise and research which has been sought by other countries. In this field, Flanders – not Belgium – was a clear pioneer and frontrunner in assessing the environmental health implications of events (e.g. the chemical exposure of the population in general and of specific target groups within it).

The UK, on the other hand, has demonstrated a high degree of responsiveness to the EU policies and a timely delivery of their implementation, as illustrated by the NEHAP. Follow-up studies, however, show that the take up of some of these EU-mandated initiatives is minimal. The explanation here seems to be that the UK was already developing environmental health policies and practices before the EU processes were put in place, and therefore the preference has been to simply repack already existing domestic policies for the EU. This pattern reflects the more inward-facing approach the UK has developed.

A striking point of simultaneous similarity and dissimilarity between the UK and Belgium is the discursive and, to some extent, organizational link of the emerging environmental health policy arena to that of 'sustainability'. In both countries, this link has had detrimental as well as constructive results. In the UK, for example, there is a critique that the dominance of the sustainability agenda within health arenas has generated a lack of support for an explicit environmental health movement as an entity in its own right. In other words, there has been no need for integrating environmental health into sustainability; a link that has tended to complicate things significantly. In Flanders, by contrast, the 'sustainability' discourse was one of the successful triggering mechanisms which led governments to acknowledge the interdependence of human beings and the environment, and thereby to acknowledge the need for more environment-health integration. Therefore, in the latter country, environmental health is now regarded as part of a sustainable future, whereas the former already conceived it as a policy domain.

In summary, the combination of a discursive institutionalism stance, a multi-level governance perspective and an analysis based upon the Policy Arrangement Approach enabled assessment of the extent to which emerging international discourses led to changes in domestic institutional arrangements. At all levels, the gradual institutionalization of environmental health as a policy field is witnessed. This study made it clear that discourses triggered these changes, and to a greater or lesser extent transformed institutions at the national level, by giving opportunities to new agencies to enter the arena, establishing new rules and inducing altered power relations. It can therefore be concluded that these discursive changes affected, and continue to affect, domestic institutional policy arrangements. Observed key changes reflect: (a) evolving definitions of 'environment', to some extent including the re-organization of this policy field; (b) changing notions about how the environment in general, and specific environmental conditions and exposures in particular, are detrimental to health; and (c) gradually institutionalizing systems of

monitoring, promoting and preserving environmental health at EU level as well as at national level.

Therefore, while the authors can offer insights into the extent to which national policies have been affected by international discourses, and identify some of the triggering and hindering mechanisms responsible for these changes, the latter phenomenon in particular raises new questions. One of these, for example, is under what circumstances are discourses accepted and acknowledged as legitimized sources for political and policy action? A related question is exactly what the role of scientists, scientific insights and methodologies play in this process, and how the role of scientists relates to the role of NGOs, private market agencies and others involved. Of course, some of these agencies do merge into discursive coalitions or advocacy networks. From this move, interesting questions also arise about whether national and international coalitions do indeed converge, thereby contributing to internationalization (e.g. the harmonization of certain approaches and practices across nations). These questions are by no means exhaustive, yet they mark the future pathway of the authors' research, of which the exploratory study, based primarily on policy documents, is reported on in this paper. Future research will elaborate upon this initial study, and will be based on in-depth interviews with the main stakeholders in the respective policy formation processes in order to trace the path of certain discourses advocated by specific actors, and the effects thereof. In-depth interviews will result in a much more detailed picture of the actor map, and a better understanding of the institutional changes discussed and the mechanisms behind them. This understanding appears to be important as humanity increasingly faces serious environmental health challenges which are both national and transnational in their origins and their consequences.

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